



TEXTURING SYSTEMS FOR USE IN
THREE-DIMENSIONAL IMAGING SYSTEMS

ABSTRACT

A texturing system for use in a three-dimensional imaging system comprises a memory for storing mip-map data for use in texturing an image. A controller retrieves from the memory the mip-map data required and this data is stored in a cache. A lower-level mip-map generator generates portions of the mip-map for the next below level mip-map, in the hierarchical series, from the mip-map data held in the cache. A trilinear interpolator interpolates one output texel from input texels from the two mip-map levels. The texture data is represented by compressed codes. The lower-level mip-map generator interpolates on the compressed code values.